Tracking of Emergency Patients (TEP)

Emergency Data Exchange Language (EDXL) Messaging Standards Development

Agenda
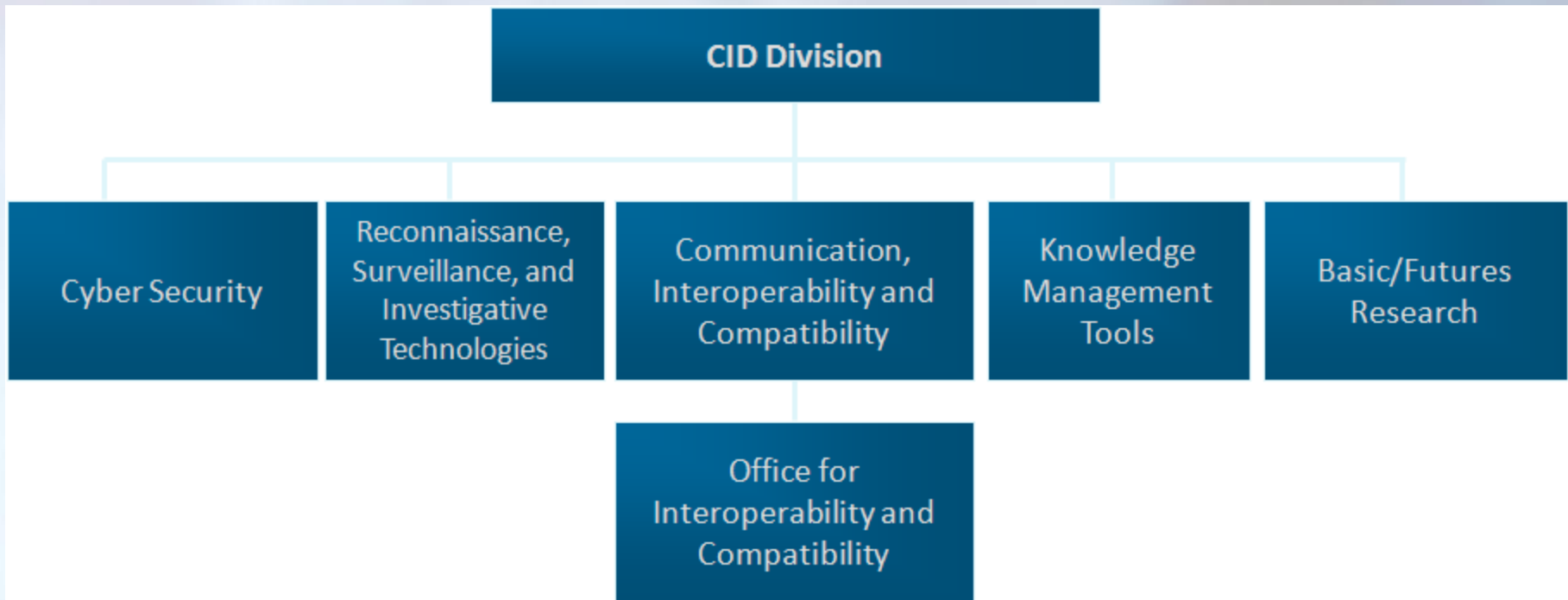
- Welcome & Acknowledgements

- Program Background & Process

- TEP Overview

- TEP Status and Next Steps

- Questions

EDXL-Tracking of Emergency Patients (TEP)

The Program

Managed by the U.S. Department of Homeland Security's (DHS) Science and Technology Directorate, CID delivers on its mission through five thrust areas.

Mission: Through a practitioner-driven approach, CID creates and deploys information resources—standards, frameworks, tools, and technologies—to enable seamless secure interactions among local, state and homeland security stakeholders.

EDXL Standards Background

- Following voice interoperability programs such as SAFECOM, the OIC's interoperable messaging standards program was initiated as one of the President's e-Gov initiatives in 2001.

- Its mission is to serve as the standards program within the Federal Government to facilitate local, tribal, state, and federal public safety and emergency response agencies to improve emergency / disaster response through effective and efficient interoperable data sharing.

- The EDXL program (Emergency Data Exchange Language) is a practitioner-driven, public-private partnership that creates information sharing capabilities between disparate software applications and systems that support emergencies and disasters – "Outside of Hospital Process"
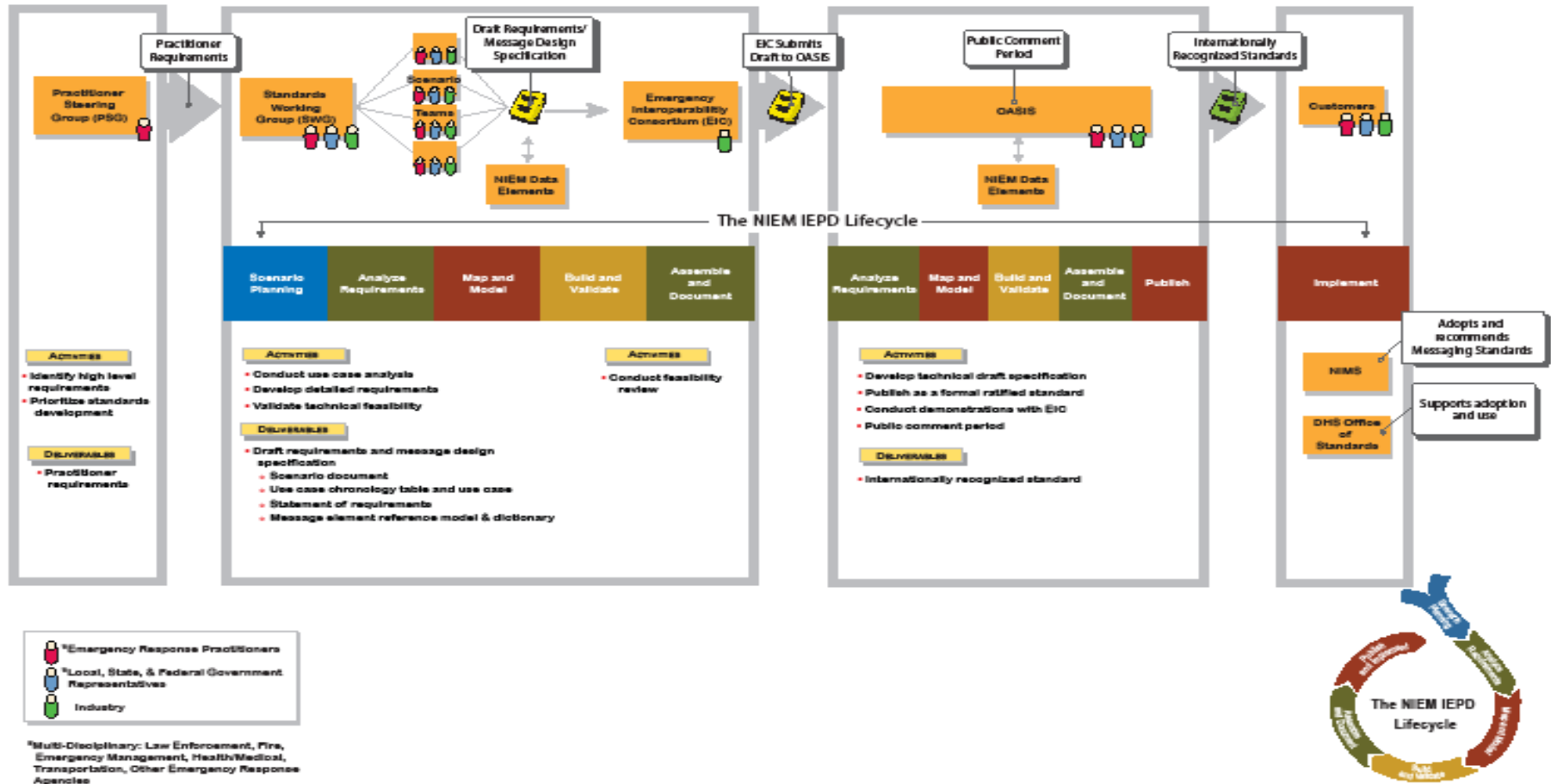
EDXL Standards Background

- EDXL will accomplish this mission through the standardization of specific messages (XML messaging interfaces) to facilitate emergency communication and coordination - particularly when more than one profession or jurisdiction is involved.

- This open and public process is driven solely by cross-profession emergency & disaster support practitioners through an OIC-sponsored Practitioner Steering Group (PSG) and Standards Working Group (SWG).

- This program works with the EIC (Emergency Interoperability Consortium), Vendor communities, and OASIS (Organization for the Advancement of Structured Information Standards).

Standards Development Process

OIC Emergency Data Exchange Language Standards Development Process

OASIS EDXL Standards

Common Alerting Protocol (CAP 1.1)

▪ The original "model" for this standards process, prior to "EDXL" nomenclature. Exchange emergency alerts, notifications, and public warnings

▪ Widely implemented (DHS S&T CBRN, DNDO, NOAA HazCollect, USGS, Global Tsunami Alerting System, IPAWS, ITU, EAS mandate and Over 100 commercial vendors with known EDXL implementations)

Distribution Element (DE 1.0)

▪ Secure, flexible routing of any type of content (XML and non-XML)

▪ Public and Emergency response / management focus. Messages may be routed by specific recipients, by a geographic area, or by other flexible codes such as agency type (police, fire, etc.).

OASIS Approved Standards

Resource Messaging (RM 1.0)

- RM was adopted as an OASIS standard in November 2008.
- Provides a suite of 16 standard XML messages for data sharing among emergency and other information systems that deal in requesting and providing emergency equipment, supplies, people, and teams such as a Request for Resources and Response to Request for Resources for incident preparedness, response and recovery.

Hospital AVailability Exchange (HAVE 1.0)

- HAVE was adopted as an OASIS standard in November 2008.
- HAVE provides an XML message for communication of the status of a hospital, its services, and resources, including bed capacity and availability, emergency department status, and available service coverage. This assists hospital coordination

  and routing of patients to facilities for care during emergencies

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EDXL Tracking of Emergency Patients (TEP)

✓**Practitioner-driven Process; DHS-Sponsored**
✓**Part of the EDXL Process / Family of Standards**

Background

- The NASEMSO with many other agencies and organizations recognized the need for standards-based interoperability to realize the potential of the numerous patient tracking systems in existence or planned

- Introduced TEP to the DHS S&T Office for Interoperability and Compatibility (OIC) – sponsor of the EDXL development process

- This mature process has a proven track-record for developing cross-profession, practitioner-driven messaging standards

- Effort was Initiated by the PSG as the next EDXL Priority

- Help close HITSP ER-EHR IS04 Gaps

- Supports HHS & DOD AHRQ Objectives

Tracking of Emergency Patients (TEP) Research

STANDARDS

- OASIS EDXL
- ASTM Continuity of Care Record (CCR)
- HITSP ER-EHR
- HL7 Continuity of Care Document (CCD)
- PHIN Standards
- Vehicular Emergency Data Set (VEDS)
- National EMS Information System (NEMSIS)
- Data Elements for Emergency Department Systems (DEEDS)

NON PROFIT

- COMCARE/HIMSS Integrated Emergency Medical Response Initiative (IEMRI)
- COMCARE Integrated Patient Tracking Initiative (IPTI)
- Coordinated Assistance Network (CAN)

VENDOR PRODUCTS

- PRE-HOSPITAL
- IN HOSPITAL

FEDERAL / DOD

HHS AHRQ Evacuee Movement
HHS AHRQ Patient Tracking Locator (PTL)
DHS - NIMS
Asst. Sec. for Preparedness & Response (ASPR)
DoD & Other Systems. E.g.
    TRAC2ES
    NDMS
    AHLTA Mobile (aka BMIST)
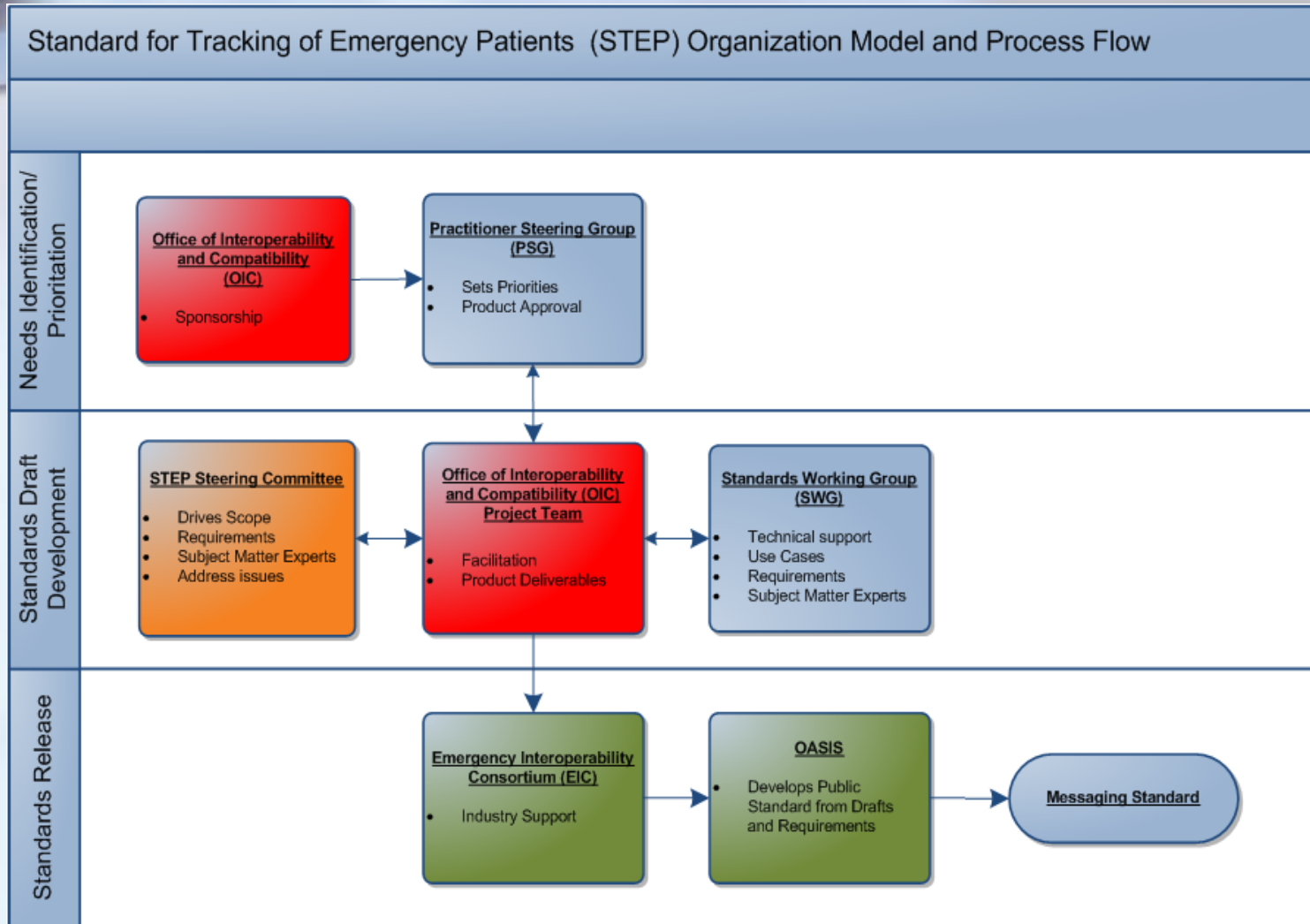   JPTA
    TacMedCS
    FCC JAC
    WebMedis

STATE AND LOCAL

MCI-PT Detailed Requirements TN DOH
Boston PTS for Public Health
Christiana Care Health System
HERDS - NYS
National Capital Region
San Francisco, STARRS

TEP Development Process

Standard for Tracking of Emergency Patients (STEP) Organization Model and Process Flow

Needs Identification/ Prioritation

Office of Interoperability and Compatibility (OIC)
- Sponsorship

Practitioner Steering Group (PSG)
- Sets Priorities
- Product Approval

Standards Draft Development

STEP Steering Committee
- Drives Scope
- Requirements
- Subject Matter Experts
- Address issues

Office of Interoperability and Compatibility (OIC) Project Team
- Facilitation
- Product Deliverables

Standards Working Group (SWG)
- Technical support
- Use Cases
- Requirements
- Subject Matter Experts

Standards Release

Emergency Interoperability Consortium (EIC)
- Industry Support

OASIS
- Develops Public Standard from Drafts and Requirements

Messaging Standard

TEP Steering Committee

Week to Week Project Engagement

LN	FN	EMAIL	PHONE	Organization Represented
Mann	Clay, Dr.	clay.mann@hsc.utah.edu	801-581-6410	NASEMSD, National EMS Information System (NEMSIS)
Mears	Greg, Dr.	gdm@med.unc.edu	919-843-0201	UNC Chapel Hill EMS Medical Director
Donohue	John	jdonohue@miemss.org	410-207-0071	Maryland Institute for EMS Systems (MIEMSS)
Sexton	Jeff	jeff.sexton@state.tn.us	615-253-8301	Tennessee DOH Office of Information Technology Services, HITSP
Moreland	Joe	joe.moreland@ems.ks.gov	785-296-7412	Kansas Board of EMS
Whitney	Jolene	jrwhitney@utah.gov	801-273-6665	Bureau of EMS State of Utah
McGinnis	Kevin	mcginnis@nasemso.org	207-512-0975	JNEMSLC, NASEMSO, Vice-Chair-OIC PSG, National Association of State EMS Officials-NASEMSO

Tracking of Emergency Patients
Purpose & Objectives

- All Hazards – Mass Casualty Focus but Support Local, Day to Day Incidents

- XML Standards-based Information-sharing (messaging) Between Disparate Systems that Track Patients - at Local, State and Federal Levels.

- Facilitate More Effective Emergency Medical Management, Patient Tracking, and Continued Patient Care Capabilities (post-EMS)

- Facilitate Effective Use of Assets – Getting Patient to the Right Facility

- Facilitate Early Preparation of Receiving Facilities (ED / Hospital)

- Assist in the "Finding" of Patients During and After an Emergency (families etc.)

- Help Close Gaps - HITSP (Health IT Standards Panel) ER-HER, IS04

- Support HHS & DOD AHRQ standards-based information sharing requirements

  - ➢ Re-use existing standards and efforts – avoid duplication of effort
  - ➢ Provide input to data standardization activities

Recent Developments

Eat the Elephant in 1 bite or 2?

- Acknowledge the broader context, but phased approach

- Triage / separate "victims" into "Patients" and "non-Patients"

- Agreed to address broad scope within 2 Phases:

  - Phase I – Tracking of Emergency Patients

    - EMS / Patient Centric – EMS life-cycle processes

  - Phase II – Extend to Track General Population "victims"

    - Non-Patient ("Healthy") population

    - Evacuees, Displaced, Regulation, Family Re-unification

- OASIS may combine Phase II requirements into the Phase I TEP standard, create a new standard, or use Phase II requirements to create a new version as appropriate based on requirements and timing.

Victim: Generic term for a person displaced, evacuated, expired and/or requiring medical attention
Patient: A victim requiring medical attention or being medically evaluated; or a fatality

TEP Phase I
Process & Info Supported

- Re-use Responder Dispatch Information when Available

- **Focus** Tracking Process from EMS-certified Patient Encounter Through Release, Hospital Admission or Morgue

- Supports Hospital Evacuations & Patient Transfers (where EMS-certified resources are involved)

- Share Patient Movement/Tracking, Disposition, and some Condition and Care Information During Emergency Medical Transport

- TEP Information-Sharing Supports:

    - Basic Incident Occurrence Information (9-1-1, Dispatch)

    - Care Provider Demographics (e.g. Search & Rescue, EMS)

    - Unique Identification of the Patient

    - Tracking of Physical Movement and Transition Between Care Providers

    - Basic Patient Emergency Evaluation, Symptoms and Care

    - Patient Outcome and Disposition After Release from Emergency Care

TEP Phase I Scope

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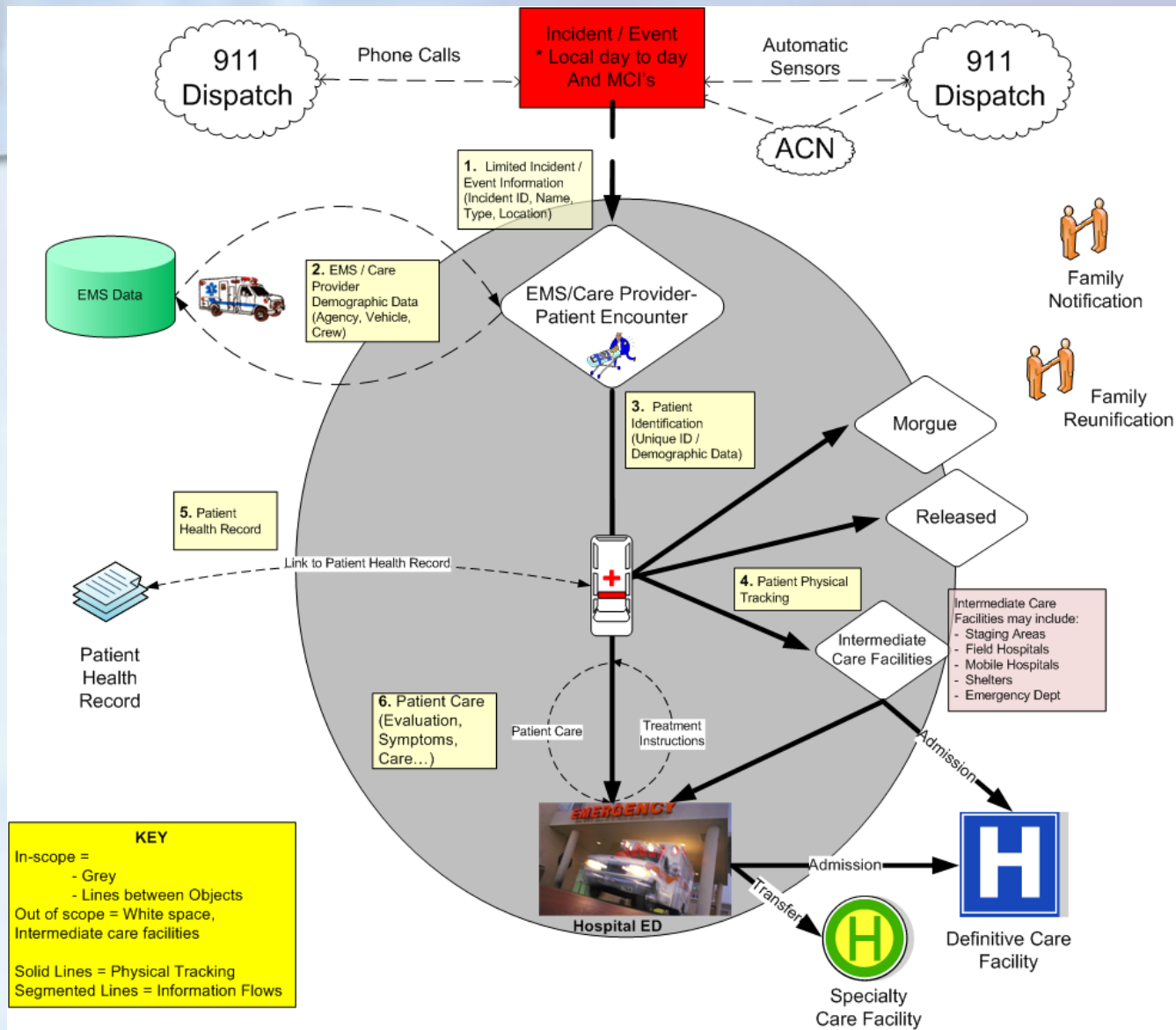
Information-Sharing Opportunities

- Dispatch / CAD Initiating Information
- Patient Tracking Systems at Local, State and Federal Levels
- Emergency Department / Hospital
- Cross-Profession, e.g.
    - EMS
    - Emergency Management
    - Various Health Organizations and Care Facilities
- AHRQ National Database

Target Project Time-Line

Deliverables-Milestones	Tentative Delivery Dates
Messaging Standard Research Report – Research Artifacts	January – COMPLETE
Initial identification of Stakeholder Group	Mid-February – COMPLETE
Project Initiation Document (PID) Outline	Mid-February – COMPLETE
Draft Project Initiation Document (PID)	April – COMPLETE
HHS Summit - Face to Face meetings (TEP Steering Committee)	April 4-8 - COMPLETE
Revised PID & Stakeholder/SWG kick-off	May - COMPLETE
Comment Responses & PID Refinement. Vendor input. Scenarios & Use Cases. Requirements & draft Messaging Specification Design & Development	June - August
Stakeholder/SWG/PSG draft specification review.	September
Mapping and Gap Analysis – existing standards	Concurrent with Document Life Cycle
Issues addressed & revised document. Stakeholder/SWG/PSG review & approval	October
Submit Package to EIC / OASIS TC	October / November

Immediate Next Steps

- Responses to the 157 TEP-PID comments received

- Revise the PID document to reflect this approach and applicable comments

- Re-distribute the revised PID, also including vendor contacts identified by the stakeholder groups.

- Continue detailed analysis leading to a TEP Requirements and draft Messaging Specification, for submission to OASIS.

- Plan Input-loop & continuity during SDO Process

- Advocacy for the Resulting Standard(s)

EDXL-Tracking of Emergency Patients (TEP)

Contact Information

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Questions?